

REMARKS/ARGUMENTS

Claims 1-23 and 25-28 are pending. Claims 1-15, 20-23, 26, and 27 are allowed. Claims 17-19 are indicated to be drawn to patentable subject matter but are objected to for being dependent on rejected base claims. Claim 28 is rejected as anticipated by U.S. Patent No. 5,014,518 to Thomson et al. Claim 16 is rejected as unpatentable over U.S. Patent No. 3,740,163 to Schinnerer et al. in view of U.S. Patent No. 5,529,464 to Emerson et al. Claim 24 is rejected as unpatentable over U.S. Patent No. 4,608,827 to Hasegawa et al. in view of Emerson et al. Claim 25 is rejected as unpatentable over U.S. Patent No. 6,668,553 to Ghizawi in view of Emerson et al.

Applicant appreciates the careful and thorough examination reflected in the Office Action, and the indication of allowed and allowable claims. Claim 24 has been canceled, thus obviating its rejection. The claims have also been amended to address the claim objections in the Office Action at pages 2 and 3. These amendments make no change to the scope of the amended claims, but are being made solely to employ consistent terminology for claim elements throughout.

For the reasons set forth below, it is submitted that Claims 16, 25, and 28 are patentable over the cited references.

With regard to Claim 28, it is drawn to a method of operating a turbocharger that receives exhaust gas from an engine, the turbocharger having foil bearings. A variable nozzle is partially closed at engine idle conditions to increase the idle speed of the turbocharger and thereby prevent the foil bearings from stalling and stopping. The Office Action asserts that Thomson's "turbocharger" would inherently practice this method. Applicant respectfully disagrees.

As an initial point, Thomson does not even disclose a turbocharger receiving exhaust gas from an engine. Instead, Thomson relates to an air cycle machine that receives bleed air from the compressor of a turbine engine. The air cycle machine does include a variable nozzle 103 for the first turbine 54. However, Applicant cannot find anything in Thomson disclosing the use of

the variable nozzle **54** to increase idle speed so as to prevent foil bearings from stalling and stopping. The only disclosure Applicant can find with regard to the function of the variable nozzle **103** occurs at column 3, lines 60-62, wherein it is stated: "Bleed air flow into the first turbine **54** may be restricted and controlled by the use of a variable nozzle assembly **103**." There is absolutely nothing teaching or suggesting that foil bearings can be prevented from stalling and stopping at engine idle conditions by partially closing the variable nozzle to increase turbine idle speed. Accordingly, it is respectfully submitted that Claim 28 is patentable.

With respect to Claim 16, the Office Action asserts it is unpatentable over Schinnerer in view of Emerson. Claim 16 is drawn to a turbocharger and requires a bearing cartridge and center housing configured such that the cartridge is insertable as a unit into the bore of the center housing from an end of the center housing adjacent the compressor. The Office Action asserts that Schinnerer discloses such a turbocharger in Figure 3. Applicant respectfully disagrees.

In fact, it is clear from Figure 3 that the thrust bearing **24** is contained in an annular cavity between two parts of the center housing. Thus, there is no conceivable way the "bearing cartridge" **26, 24, 28** could be inserted as a unit into the center housing from the end of the center housing adjacent the compressor. It appears that, to the extent one can deduce anything from the highly schematic Figure 3, it would be necessary to form the center housing in two parts that would be fitted together to capture the thrust bearing between them. At any rate, Schinnerer is completely silent as to how the turbocharger is assembled, and fails to teach or suggest a foil bearing cartridge and center housing as recited in Claim 16. Emerson likewise fails to teach or suggest these elements. Therefore, it is respectfully submitted that Claim 16 is patentable.

Claim 25 was rejected as unpatentable over Ghizawi in view of Emerson. The Office Action asserts that Ghizawi discloses air filter **24** arranged in the cooling air supply line **52, 54** for removing oil vapor from the cooling air before it is supplied to cool the bearing assembly. This is incorrect. The air filter **24** is for filtering the air that is drawn into the inlet of the compressor **14**. There is no filter downstream of the compressor for removing oil vapor from the air bled off through the bleed port **34** and subsequently supplied to the turbocharger for cooling

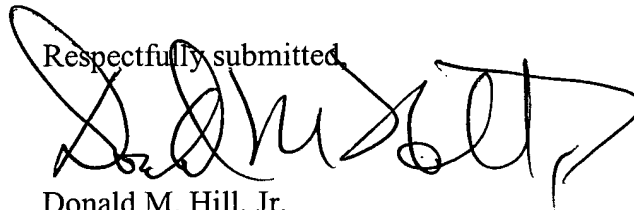
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Reply to Office action of March 18, 2005

the bearing. Emerson likewise does not disclose any such filter. Thus, it is submitted that Claim 25 is patentable.

Conclusion

Based on the foregoing amendments and remarks, it is respectfully submitted that all pending claims are patentable and the application is in condition for allowance. The Examiner is invited to telephone Chris James at the below-listed telephone number if any further issues require resolution before allowance.

Respectfully submitted,



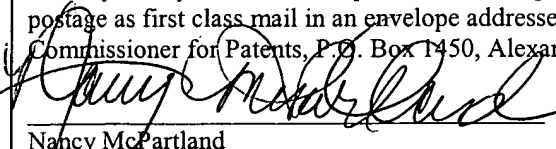
Donald M. Hill, Jr.
Registration No. 40,646

Send all correspondence regarding this application to:

Chris James
Honeywell Turbo Technologies
23326 Hawthorne Lane Blvd, Suite 200
Torrance, CA, 90505-3576
(310) 791-7850
Fax (310) 791-7855

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Nancy McPartland

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